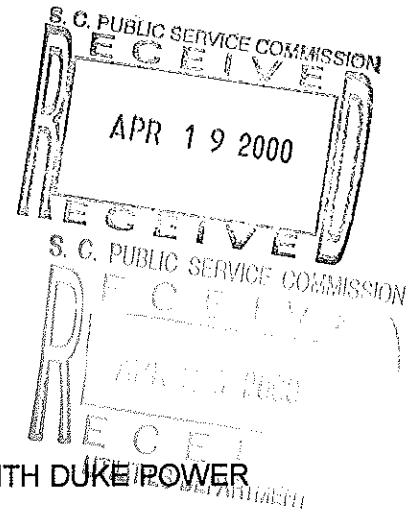
POSTED
DW 4-19-00



TESTIMONY OF S. K. YOUNG

FOR

DUKE POWER COMPANY

PSCSC DOCKET NO. 2000-0003-E

Q. PLEASE STATE YOUR NAME, ADDRESS AND POSITION WITH DUKE POWER COMPANY.

A. My name is Steven K. Young and my business address is 422 South Church Street, Charlotte, North Carolina. I am Vice President, Rates and Regulatory Affairs of Duke Power Company.

Q. STATE BRIEFLY YOUR EDUCATION, ACCOUNTING BACKGROUND AND PROFESSIONAL AFFILIATIONS.

A. I am a graduate of the University of North Carolina with a Bachelor of Science in Business Administration. I am a Certified Public Accountant and a Certified Managerial Accountant, with memberships in the American Institute of Certified Public Accountants, the Institute of Managerial Accountants and the National Association of Accountants. I am also a member of the Edison Electric Institute Economic Regulation and Competition Committee and the Southeastern Electric Exchange Rate Committee.

Q. PLEASE DESCRIBE YOUR BUSINESS BACKGROUND AND EXPERIENCE.

A. I began my employment with Duke in the Controller's Department in July, 1980, and became Supervisor of the Catawba Interconnect Systems in May, 1986. In November, 1988, I became Director of Catawba Accounting. In September, 1991, I became Manager of Bulk Power Agreements in the System Planning and Operating Department. In November, 1992, I became Manager of the Rate Department. I

RETURN DATE: 01C DBJ
SERVICE: 01C DBJ

assumed my current position as Vice President, Rates and Regulatory Affairs in April, 1998.

Q. ARE YOU FAMILIAR WITH THE ACCOUNTING PROCEDURES AND BOOKS OF ACCOUNT OF DUKE POWER COMPANY?

A. Yes. As ordered by this Commission, the books of account of Duke Power Company follow the uniform classification of accounts prescribed by the Federal Regulatory Commission.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is as follows:

1. To furnish information relating to our fuel purchasing and practices for the period April, 1999 through March, 2000, and to summarize the Company's procedures in accounting for fuel.

2. To update the actual fuel cost data reviewed in these proceedings. Actual fuel costs through March 1999 were presented in the last hearing. April 1999 through March 2000 actual fuel cost data is presented in Young Exhibits 3 and 8 accompanying my testimony.

3. To summarize the performance of the Company's nuclear generating system during the period April 1999 through February 2000.

4. To discuss the fuel recovery results for the period April 1999 through May 2000.

5. To provide and explain the Company's computations for the projected fuel costs for the twelve-month period June 2000 through May 2001.

Q. YOUR TESTIMONY INCLUDES 8 EXHIBITS. WERE THESE EXHIBITS PREPARED BY YOU OR AT YOUR DIRECTION AND UNDER YOUR SUPERVISION?

A. Yes. Each of these exhibits was prepared at my direction and/or under my supervision.

Q. CAN YOU PROVIDE A SUMMARY OF DUKE'S FUEL PROCUREMENT PRACTICES?

A. Yes. The Company continues to follow the same procurement practices discussed in previous testimony, and a summary of those practices is as follows:

1. Estimating Fuel Requirements. Fuel requirements are estimated annually based on input data from several departments, including Forecasting, System Planning, Nuclear Production, Fossil Production, Operating and Fuel Purchasing.

2. Inventory Requirements. Monthly and annual fuel inventory requirements for each station and the system are determined after considering the Company's purchasing and production requirements.

3. Covering of Fuel Requirements. On a monthly and annual basis, reviews are made of existing contracts and projected consumption to determine the need for additional spot or contract supplies.

4. Qualified Suppliers. A list of qualified suppliers is maintained along with detailed historical records of their performance and capabilities as to quantity, quality, loading capacities, etc. Invitations to bid are distributed to all qualified suppliers to cover additional or future contract needs.

5. Bid Evaluation. Contracts are awarded after a complete evaluation cycle including if necessary an on-site visit to the source to determine the capabilities of the suppliers.

6. Spot Purchases. To supplement our fuel supply, entry into the spot market is made on a month-by-month basis.

7. Expediting. All orders are expedited (monitored) closely as to performance against schedule quantity, quality, and proper bills of lading, etc.

8. Quality Control. The Company samples and analyzes all coal received at each station. These analyses are monitored closely against contract specifications and serve as the basis for final price determinations. All coal is also weighed at each station to verify freight charges assessed by the railroads.

Q. WHAT IS SHOWN ON YOUNG EXHIBIT 1?

A. Young Exhibit 1 is a statistical summary for each fuel category for the test period April, 1999 through March, 2000. The Exhibit includes the quantities consumed, quantities purchased, and the 12-month weighted average purchase price for each fuel. Due to the different components which make up the total cost of coal, coal statistics are further broken down to show the average cost f.o.b. mine, the transportation cost, and the delivered cost per million Btus.

Oil prices increased $0.23 per gallon when compared to the previous 12-month period. This increase was the result of the transition from the somewhat over-supplied petroleum market of early 1999 to the under-supplied markets of late 1999 and early 2000. This supply/demand imbalance propelled prices higher than was forecasted.

Our consumption of natural gas was 18% lower than the quantity for the previous year which is reflective of the lower demand for peaking power than the previous 12-month period. Most of this consumption was at our Lincoln Combustion Turbine Station. The average price ($3.08/mcf)was 9.2% higher than that for the previous twelve months.

The average price for uranium decreased $1.61 per pound. Excess western world inventories have influenced prices, however this is not expected to continue. Present production is less than demand and inventories are being depleted. This may lead to firmer prices in future years.

The delivered cost of coal decreased 1.58 % during this period. The overall decrease resulted from lower cost contract coal and a depressed spot market. The delivered cost per million Btus, which incorporates the quality of the coal, was $1.3884.

The average price for contract coal reduced substantially 1-1-00 as we continued to replace older contract coal with short-term market based contract coal.

Spot purchases during this period were 4.8 million tons or 31% of the total tonnage. This was down 3%, primarily as a result of total purchases for this period being down by approximately 9%.

Q. WHAT IS SHOWN ON YOUNG EXHIBIT 2?

A. This exhibit shows inventories for coal, oil and uranium (or uranium equivalents) at the beginning and end of this reporting period.

Oil inventories are equal to the previous period as purchases have roughly equaled consumption. Uranium inventory is slightly higher due to material in process for scheduled reloads. Inventory levels fluctuate over time due to the number of reloads in process and the uranium requirements of such reloads. Therefore, future uranium inventories at any given point in time may be higher or lower than the current level depending on the associated timing of future reload requirements.

Coal inventories are significantly lower at the end of the period when compared to the beginning. The inventory at the end of this period is 24.3% below

the beginning period inventory. This inventory level has allowed purchasing spot coal at depressed market prices and supported building inventories during the months of April, May, and June for the summer load.

Q. WERE THERE ANY CHANGES TO DUKE'S COAL TRANSPORTATION RATES DURING THIS PERIOD?

A. Yes. The rates for CSX origin coal increased per rate adjustment terms of agreement 7-1-99. Contracts for CSX and Norfolk Southern originated coal expired 12-31-99. New contracts were established that resulted in rate changes. There were increases in the NS rates and reductions in the CSX rates.

Q. MR. YOUNG, CAN YOU EXPLAIN HOW THE MONTHLY COAL COSTS CHARGED TO EXPENSE ARE DERIVED?

A. All the Company's coal is delivered by rail. As coal is received at each plant, it is weighed and sampled for quality verifications. Subsequently, the purchasing department compares the weight, price and quality with the purchase order and railroad waybill. Adjustments are made to the cost of coal purchased in those cases where the quality of the coal received varies from contract specifications for BTU (British Thermal Unit) ash, and sulfur content.

Moisture and BTU tests are also made as the coal is delivered to the coal bunkers for each boiler. BTU tests measure the energy content of the coal. To the extent that the moisture content of the coal burned differs from the moisture content of coal purchased, an adjustment is subsequently made to the inventory tonnage. Wet coal weighs heavy and without the moisture adjustment, tons burned would be overstated and inventory would be understated.

Coal costs charged to expense are calculated on an individual plant basis. The expense charge is the product of the tons of coal conveyed to the bunkers for a

generating unit during the month times the average cost of the coal. The number of tons is determined by using scales located on the conveyor belt running to the unit's coal bunkers. The average cost reflects the total cost of coal on hand as of the beginning of the month, computed using the moving average inventory method, plus the cost of coal delivered to the plant during the month. The cost of coal is determined from the invoice for the coal and the freight bill and does not include any nonfuel cost or coal handling cost at the generating station.

Physical inventories using aerial surveys are conducted annually. An adjustment to book inventory was made in December 1999 based on an aerial survey conducted in October 1999.

Q. PLEASE DISCUSS THE PERFORMANCE OF DUKE POWER COMPANY'S FOSSIL GENERATING SYSTEM.

A. In 1999 the fossil steam generating plants provided 42% of total generation. The heat rate for the fossil coal system was 9404 BTU. A low heat rate indicates that the generating system is using less heat energy from fuel to generate electrical energy.

Q. PLEASE EXPLAIN HOW MONTHLY NUCLEAR COSTS CHARGED TO EXPENSE ARE DERIVED.

A. Nuclear fuel expense for the month is based on the energy output in Mbtus of each fuel assembly in the core, nuclear fuel disposal costs and the DOE Decontamination and Decommissioning Fund Fee.

The cost of each fuel assembly is determined when the fuel is loaded in the reactor. The costs include yellowcake (uranium), conversion, enrichment and fabrication. An estimate of the energy content of each fuel assembly is also made. A cost per Mbtu is determined by dividing the cost of the assembly by its expected

energy output. Each month an engineering calculation of the Mbtu output of an assembly is priced at its cost per Mbtu.

During the life of a fuel assembly, the expected energy output may change as a result of actual plant operations. When this occurs, changes are made in the cost per Mbtu for the remaining energy output of the assembly. New fuel assembly orders are planned for either a sixteen or eighteen month cycle. The length of a cycle is the duration of time between when a unit starts up after refueling and when it starts up after its next refueling. During a refueling approximately one-third of the fuel in the reactor is replaced.

Q. MR. YOUNG, WHAT IS THE MAGNITUDE OF THE COMPANY'S MONTHLY FUEL COSTS?

A. Young Exhibit 3 sets forth the total system actual fuel costs (as burned) that the Company incurred from April 1999 through March 2000. This exhibit also shows fuel costs by type of generation and total MWH generated during this period. The oil and gas usage was for light-off fuel used to start up our coal plants and for combustion turbine generation. The monthly fluctuations in total fuel cost during this period are primarily due to refueling and other outages at the nuclear stations, weather sensitive sales and the availability of hydro generation.

Q. MR. YOUNG, WHAT IS THE MAGNITUDE OF THE COMPANY'S FUEL COST COMPARED TO THE TOTAL COST OF SERVICE?

A. Fuel costs continue to be the largest cost item incurred in providing electric service. For the twelve months ended February 2000, fuel and the fuel component of purchased power represented approximately 18% of the Company's total revenue. Coal costs are the largest fuel cost component and during the period April 1999 through March 2000 comprised approximately 68% of the Company's fuel bill.

Q. MR. YOUNG, WHAT HAS HAPPENED TO THE UNIT COST OF FUEL DURING RECENT REPORTING PERIODS?

A. Young Exhibits 4A and 4B graphically portray the "as burned" cost of both coal and nuclear fuel in cents per million BTU (MBTU) for the twelve month periods ending January 1998 through March 2000. As Exhibit 4A shows, coal costs have trended downward somewhat during this period. The trend of coal prices reflects price reductions resulting from contract re-negotiations as well as a depressed spot market as our total needs increased with growth. Exhibit 4B shows that nuclear fuel costs have also trended down slightly.

While the unit costs of each type of fuel have shown little volatility in the recent past, we can expect our composite cost of fuel to increase. Our future KWH growth will be met primarily from the Company's coal generating units and the cost of coal is about three times the cost of nuclear fuel.

Q. MR. YOUNG, WHAT DOES YOUNG EXHIBIT 5 SHOW?

A. Young Exhibit 5 graphically shows generation by type for the current and projected test periods as well as three prior periods.

Q. MR. YOUNG, WOULD YOU PLEASE DISCUSS THE PERFORMANCE OF THE COMPANY'S NUCLEAR GENERATING SYSTEM DURING THE PERIOD APRIL 1999 THROUGH MARCH 2000?

A. Young Exhibit 6 sets forth the achieved nuclear capacity factor for the period April 1999 through March 2000 based on the criteria set forth in Section 58-27-865, Code of Laws of South Carolina as amended in 1996. The statute states as follows:

> There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation facility or system, as applicable, if the utility achieved a net capacity factor of ninety-two and one-half percent or higher during the

period under review. The calculation of the net capacity factor shall exclude reasonable outage time ... .

As shown on page 1 of Young Exhibit 6, the Company's achieved capacity factor reflecting reasonable outage time (as set forth in § 58-27-865) was greater than 92.5% for the current period.

With the refueling requirements, maintenance requirements, Nuclear Regulatory Commission (NRC) operating requirements, and the complexity of operating nuclear generating units our system will nearly always have the equivalent of at least one nuclear unit out of service. Pages 2 and 3 of Young Exhibit 6 show the dates of and explanations for actual and forecast outages of a week or more in duration.

Q. MR. YOUNG, DO YOU BELIEVE THE COMPANY'S ACTUAL FUEL COSTS INCURRED DURING THE PERIOD APRIL 1999 THROUGH MARCH 2000 WERE REASONABLE?

A. Yes. I believe the costs are reasonable and meet the guideline test set forth in Section 58-27-865(F) of the Code of Laws of South Carolina. They also reflect the Company's continuing efforts to maintain reliable service and an economical generation mix, thereby minimizing the total cost of providing service to our South Carolina retail customers.

Q. WHAT FUEL FACTORS HAS THIS COMMISSION APPROVED IN THE PAST?

A. The following table shows the approved factors since 1979, when the current fuel clause procedure began:

Period	Periods	¢/KWH
June 1979 - May 1980	2	1.3500
June 1980 - May 1981	2	1.2250
June 1981 - November 1981	1	1.5000
December 1981 - May 1982	1	1.5750
June 1982 - November 1982	1	1.6500
December 1982 - May 1983	1	1.6000

June 1983 - May 1984	2	1.3750
March 1984		1.0500
June 1984 - November 1984	1	1.1250
December 1984 - November 1985	2	1.2500
October 1985		1.1199
December 1985 - November 1986	2	1.1199
November 1986		0.9806
December 1986 - May 1987	1	0.9806
June 1987 - November 1987	1	1.1500
December 1987 - November 1988	2	1.2500
December 1988 - November 1989	2	1.0750
December 1989 - May 1990	1	1.0500
June 1990 - November 1990	1	1.0000
December 1990 - November 1991	2	1.1000
December 1991 - May 1992	1	1.0000
June 1992 - November 1993	3	0.9500
December 1993 - May 2000	10	1.0000

Q. WHAT HAS BEEN THE COMPANY'S FUEL RECOVERY EXPERIENCE DURING THE PERIOD APRIL 1998 THROUGH MARCH 1999?

A. Young Exhibit 7 shows the actual fuel costs incurred for the period April 1999 through March 2000, the estimated fuel costs for April and May 2000 and the over-recovery carried forward at the beginning of the period. This exhibit compares the fuel costs incurred with the fuel rate being collected. The Company started the period over-recovered by $11,706,000 as shown on line 12, and, as shown on line 13, the Company is projecting an over-recovery at the end of the period of $24,372,000. During the period the Company's fuel costs were impacted by nuclear performance that resulted in an exceptional nuclear capacity factor and the existence of lower cost coal from a depressed spot market during a majority of the period.

Q. MR. YOUNG, WHAT IS THE COST OF FUEL THE COMPANY PROJECTS FOR RECOVERY DURING THE PERIOD JUNE 2000 THROUGH MAY 2001?

A. Young Exhibit 8 sets forth projected fuel costs for the period June 2000 through May 2001. As shown on line 7, the fuel cost estimated for recovery during this period is 1.0609¢/KWH. After adjusting for the cumulative over-recovery, the adjusted fuel cost is 0.9541¢/KWH.

Q. WHAT WAS THE BASIS FOR ESTIMATING FUEL COSTS AS SHOWN ON YOUNG EXHIBIT 8?

A. The latest available information was used to develop the projections shown on Young Exhibit 8. The projected KWH sales on line 6 are from the Company's 1999 sales forecast. Projected nuclear generation reflects planned refueling outages and a 95% capacity factor while the units are running. The most recent nuclear fuel cost estimate was used to determine projected nuclear fuel expense. Estimated hydro generation for the period is based on median generation for the period 1969 - 1999. The median hydro generation for each calendar month is determined by selecting the value of generation for that calendar month that is greater than the generation values for that calendar month during 15 years of a 31 year (1969 - 1999) period and less than the generation values for that calendar month during 15 years of the same 31 year period.

Q. MR. YOUNG, WHAT FUEL FACTOR IS THE COMPANY PROPOSING FOR INCLUSION IN BASE RATES EFFECTIVE JUNE 1, 2000?

A. The Company proposes that a fuel factor of 0.9500¢/KWH be reflected in base rates for the period June 1, 2000 through May 31, 2001. Based on our estimate, this fuel factor would allow the Company to recover its fuel costs incurred during the period June 2000 through May 2001, resulting in a slight under-recovery at the end of the period. This factor balances out over/under-recoveries of fuel costs over time and is in keeping with the spirit of the statute which allows utilities to recover

prudently incurred fuel costs "in a manner that tends to ensure public confidence and minimize abrupt changes in charges to consumers."

Q. MR. YOUNG, DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.